

## **ABSTRACT**

The invention provides a method for the conversion into carbon of gaseous hydrocarbons extracted from a natural hydrocarbon reservoir, which method comprises contacting said gaseous hydrocarbon at an elevated temperature in a reactor with a catalyst capable of converting said hydrocarbon to carbon and hydrogen; burning hydrogen produced by the conversion of the hydrocarbon, optionally after separating hydrogen produced from unconverted hydrocarbon, burning said hydrogen to generate energy; and using the energy generated to heat said reactor or the gaseous hydrocarbon flow thereto, or to heat or power a heat or power consuming apparatus.